**Application No.: 09/515,037** 

Office Action Dated: March 14, 2003

This listing of claims will replace all prior versions, and listings, of claims in the application.

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## **Listing of Claims**

1. (original) A computerized method for updating a version of an object having a property, the method comprising:

receiving an updated value for the property;

setting an end version field in a first data structure to a value representing a predecessor version of the object;

creating a second data structure;

setting a start version field in the second data structure to a value representing a new version of the object; and

setting an end version field in the second data structure to a value representing a most recent version of the object.

- 2. (original) The computerized method of claim 1, further comprising setting a property value field to the updated value.
- 3. (currently amended) The computerized method of claim 1, wherein the value representing the most recent <u>versionvalue</u> is infinity.
- 4. (original) The computerized method of claim 1, wherein the data structure is a row in a database.
- 5. (original) The computerized method of claim 1, wherein the object is a COM (Component Object Model) object.
- 6. (original) A computer-readable medium having a data structure stored thereon, the medium comprising:

a first field comprising a key for the data structure;

Page 2 of 16

A.I.

Application No.: 09/515,037
Office Action Dated: March 14, 2003

a second field comprising a start version identifier;

a third field comprising an end version identifier;

a fourth field comprising a property value; and

wherein the second and third field define a range of versions of an object identified by the first field having the property value in the fourth field.

**PATENT** 

- 7. (original) The computer-readable medium of claim 6, wherein the first field comprises an object identifier and a branch identifier.
- 8. (original) A computer-readable medium having computer-executable instructions for updating a version of an object having a property, the method comprising: receiving an updated value for the property;

setting an end version field in a first data structure to a value representing a predecessor version of the object;

creating a second data structure;

setting a start version field in the second data structure to a value representing a new version of the object; and

setting an end version field in the second data structure to a value representing a most recent version of the object.

- 9. (original) The computer-readable medium of claim 8, further comprising setting a property value field to the updated value.
- 10. (original) The computer-readable medium of claim 8, wherein the value representing the most recent value is infinity.
- 11. (original) The computer-readable medium of claim\8, wherein the data structure is a row in a database.

**Application No.: 09/515,037** 

Office Action Dated: March 14, 2003

12. (original) The computer-readable medium of claim 8, wherein the object is a COM (Component Object Model) object.

**PATENT** 

13. (original) A method for propagating a relationship of a predecessor object to a successor object, said relationship having an origin object and a destination object, the method comprising:

reading a propagation flag on the relationship; and

if the propagation flag is set then performing the tasks of:

determining if a new version of the destination object has been added;

upon determining the new version has been added:

setting an end version field in a first data structure with a value representing a predecessor version of the object;

creating a second data structure;

setting a start version in the second data structure to a value representing the successor version.

- 14. (currently amended) The computerized-method of claim 13, wherein the predecessor object and the successor object are COM objects.)
- 15. (original) A computer-readable medium having computer executable instructions for performing a method for propagating a relationship of a predecessor object to a successor object, said relationship having an origin object and a destination object, the method comprising:

reading a propagation flag on the relationship; and if the propagation flag is set then performing the tasks of:

Page 4 of 16

A2

**Application No.: 09/515,037** 

Office Action Dated: March 14, 2003

determining if a new version of the destination object has been added; upon determining the new version has been added:

**PATENT** 

setting an end version field in a first data structure with a value representing a predecessor version of the object;

creating a second data structure;

setting a start version in the second data structure to a value representing the successor version.

16. (original) The computer-readable medium of claim 15, wherein the predecessor object and the successor object are COM objects.

## 17. through 36. (canceled).

- 37. (new) The computerized method of claim 1, wherein the start version field and the end version field define a range of versions for which a value of the property of the object has the same value.
- 38. (new) The computer-readable medium of claim 6, wherein objects and properties are only copied to the data structure when a property value of a respective object changes.
- 39. (new) The computer-readable medium of claim 6, wherein the first field includes an object identifier, a branch identifier, and a start-version identifier.
- 40. (new) The computer-readable medium of claim 39, wherein the data structure represents an object property table of an object repository and includes values for a plurality of properties included in a respective object, a version of the object represented in the object property table being indicated by the key.

A2 Shi

**Application No.:** 09/515,037

Office Action Dated: March 14, 2003

41. (new) The computer-readable medium of claim 40, wherein the object identifier indicates a row in the object property table.

**PATENT** 

42. (new) The computer-readable medium of claim 40, wherein the branch identifier indicates a branch within a particular version of the object, the branch being formed when a new successor object is created from a predecessor object having at least one other successor object.

- 43. (new) The computer-readable medium of claim 8, wherein the start version field and the end version field of a respective data structure define a range of versions for which a value of the property of the object has the same value.
- 44. (new) The method of claim 13, wherein, if the propagation flag is set, the relationship is not copied to the new version.
- 45. (new) The method of claim 13, wherein reading a propagation flag on the relationship involves reading a relationship type field of a relationship table, the relationship table including an object identifier, a branch identifier, a start-version identifier, and an end-version identifier.
- 46. (new) The method of claim 45, wherein, when creating the new version, if the new version and a predecessor version are on the same branch, as indicated by the branch identifier, and the end-version identifier is infinity, the relationship is copied without updating the relationship table.
- 47. (new) The method of claim 45, wherein a new row of the relationship table is created when a new branch is created, as indicated by the branch identifier.
- 48. (new) The computer-readable medium of claim 15, wherein, if the propagation flag is set, the relationship is not copied to the new version.

Page 6 of 16

AZ

**Application No.: 09/515,037** 

Office Action Dated: March 14, 2003

**PATENT** 

AZ

- 49. (new) The computer-readable medium of claim 15, wherein reading a propagation flag on the relationship involves reading a relationship type field of a relationship table, the relationship table including an object identifier, a branch identifier, a start-version identifier, and an end-version identifier.
- 50. (new) The computer-readable medium of claim 49, wherein, when creating a new version, if the new version and a predecessor version are on the same branch, as indicated by the branch identifier, and the end-version identifier is infinity, a relationship is copied without updating the relationship table.
- 51. (new) The computer-readable medium of claim 49, wherein a new row of the relationship table is created when a new branch is created, as indicated by the branch identifier.